ARIZONA GAME AND FISH DEPARTMENT HERITAGE DATA MANAGEMENT SYSTEM

Animal Abstract Element Code: ARACE01011

Data Sensitivity: Yes

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: Heloderma suspectum cinctum

COMMON NAME: Banded Gila Monster

SYNONYMS:

FAMILY: Helodermatidae

AUTHOR/PLACE OF PUBLICATION: Bogert and Martin del Campo.

TYPE LOCALITY: Unknown.

TYPE SPECIMEN: Unknown. Paratypes: MCZ R-4315, E Palmer, Washington Co., Utah (determined by Bogert & Delcampo 1956); FMNH 8468 (Arizona, 11 Aug 1925) and FMNH 27219 (Utah, May 1936).

TAXONOMIC UNIQUENESS: Two species in genus (*H. horridum* restricted to Mexico); Two subspecies of *Heloderma* (*suspectum* and *cinctum*), both of which occur in Arizona.

DESCRIPTION: The species is a large stout-bodied lizard with a big head, rounded body and tail, short muscular legs with big feet and large toes and strong claws. It is a beaded lizard, with a bead-like skin on its upper surfaces. The snout is solid black and they have an overall reticulated color pattern that is pink and black, orange and black, or yellowish and black. The rounded tail is fairly short and sausage shaped and has five black bands. They also have a black tongue. The species is our largest lizard with the maximum total length reaching 22 in (56.0 cm). For this subspecies the adults have dark broad cross bands with light colored (pink, orange, yellow) circles inside. Hatchlings average 6.5 in (16.5 cm) and weigh 1.2 oz (32.7g).

AIDS TO IDENTIFICATION: For this subspecies the adults have dark broad cross bands with light colored (pink, orange, yellow) circles inside.

ILLUSTRATIONS: Color photo (Brennan in http://brennanart.com/h-h-s-cinctum.html)

Color photo (Koenig in http://brennanart.com/h-h-s-cinctum.html)

Color photo (*In* http://www.gilaranch.com/cinctum-banded/banded.html)

TOTAL RANGE: Mainly northwestern Arizona (the Arizona Strip), with immediately adjacent isolated populations in Utah, Nevada and California. They have also been found in western Arizona in northwest Maricopa county and southwest Yavapai County.

RANGE WITHIN ARIZONA: See "Total Range."

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: The Gila Monster is one of only two venomous lizards known. They are not aggressive or dangerous unless they are picked up and handled. Then, they may grab an arm or a finger, cling with a vise-like grip and implant their venom by chewing it in. The venom glands are located beneath the skin in the lower jaw. The glands have ducts that carry venom to the edge of grooved venom-conducting teeth. Their heavy, stubby tail stores fat and provides subsistence when food is short. The Gila Monster is diurnal and is most active from March to June. Although they are diurnal they spend most of their time underground. They are strong climbers as well as powerful diggers. They have good daylight vision and excellent hearing. The species is sedentary and long-lived denning reptiles that return year after year to the same cold-season home site. The Gila monsters preferred winter quarters are in highland rocky outcrops. They leave their winter home sites in late spring when the temperature starts to rise and head to the cooler and moister underground of the lower bajada or valley below. The all-year home range is usually less than a kilometer. Home ranges overlap and they often go in and out of the same burrows, in a loosely knit social system where the long-term residents in the community must know each other well, and are occasionally seen together in successive years. Gila monsters are believed to live from 10-25 years. Coyotes, owls, hawks, and eagles may prey upon them and other reptiles probably consume immatures as well.

REPRODUCTION: For the species mating takes place in the early summer, and mated females deposit 6-13, 6-7 cm long eggs in a shallow depression dug in damp sand of arroyos or similar situations shortly before or during the rainy season (July and August). The eggs over winter underground and hatch the following May, after a natural incubation of approximately 10 months. Hatching time is dependent on soil temperature, which varies with latitude and with elevation across a wide range of more than 5,000 ft. The earliest hatching occurs in late April and the latest hatching during the first few days of June.

FOOD HABITS: They are a diurnal and occasionally nocturnal predator. They use their tongue to sample the air and substrate for molecules of substances that provide them information about the environment. This mechanism is apparently the principal method used to locate their prey. They feed on small mammals, lizards, and eggs of birds and reptiles.

HABITAT: In Arizona, primarily in Sonoran Desert and extreme western edge of Mohave Desert, less frequent in desert-grassland and rare in oak woodland, to ca 5,000 feet. Most common in undulating rocky foothills, bajadas and canyons. Less frequent or absent on open sandy plains.

ELEVATION: 0-5,000 ft (0-1524 m).

PLANT COMMUNITY: Unknown

POPULATION TRENDS: Unknown

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: SC (USDI, FWS 1996)

[C2 (USDI, FWS 1994)] [3C (USDI, FWS 1989)] [C2 (USDI, FWS 1985)]

STATE STATUS: 1A (AGFD SWAP 2012)

OTHER STATUS: [Bureau of Land Management Sensitive

(USDI, BLM AZ 2000, 2005)]

None (USDA, FS Region 3 1999)

[Sensitive at full species (USDA, FS Region

3 1988]

A, Determined Threatened in Mexico
(NORMA Oficial Mexicana NOM-

059-SEMARNAT-2010) [Full species Determined Threatened,

Secretaría de Medio ambiente 2000]

MANAGEMENT FACTORS: Humans are one of their primary enemies and road kills take a large toll. Agency interest because one of only two poisonous lizards in entire world; active pet trade. Habitat preservation is important, especially denning sites.

PROTECTIVE MEASURES TAKEN: Pet trade regulated.

SUGGESTED PROJECTS: Distribution, habitat, population and life history studies.

LAND MANAGEMENT/OWNERSHIP: The Banded Gila Monster has been found in Arizona on land owned by: State Land Department, U.S. Fish and Wildlife Service, Bureau of Land Management, Department of Defense and Private.

SOURCES OF FURTHER INFORMATION

REFERENCES:

Arizona Game and Fish Department. 1997. Arizona Wildlife Amphibians and Reptiles. Phoenix, AZ. p13.

- Arizona Game and Fish Department. 2012. Arizona's State Wildlife Action Plan 2012-2022. Phoenix, AZ.
- Behler, J.L. and F.W. King. 1979. The Audubon Society field guide to North American reptiles and amphibians. Alfred A. Knopf, New York. Pp. 546-547.
- Brennan, T. 2002. Available: http://www.brennanart.com/h-h-s-cinctum.html.
- Gila Ranch. 2002. Available: http://www.gilaranch.com/cinctum-banded/banded.html.
- Hanson, J. & Hanson, R.B. 1997. 50 Common Reptiles & Amphibians of the Southwest. Southwest Parks and Monuments Association. Tucson, Arizona. P. 24.
- Heymann, M.M. 1975. Reptiles and Amphibians of the American Southwest. Doubleshoe Publisher. Scottsdale, Arizona. P. 33.
- Koenig, H. 2002. Available: http://www.brennanart.com/h-h-s-cinctum.html.
- Lowe, C.H. 1964. Amphibians and reptiles. The vertebrates of Arizona. University of Arizona Press. Tucson, Arizona. Pp. 159.
- Lowe, C.H. 1986. The Venomous Reptiles of Arizona. Arizona Game and Fish Department. Phoenix, Arizona. Pp. 7-19.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: http://www.natureserve.org/explorer. (Accessed: July 25, 2002).
- Secretaría de Medio Ambiente. 2000. Diario Oficial de la Federacion. p. 53.
- Secretaría de Medio Ambiente y Recursos Naturales. 2010. NORMA Oficial Mexicana NOM-059-SEMARNAT-2010, Protección ambiental-Especies nativas de México de flora y fauna silvestres-Categorías de riesgo y especificaciones para su inclusión, exclusión o cambio-Lista de especies en riesgo.
- Smith, H.M. 1946. Handbook of lizards. Lizards of the United States and Canada. Comstock Publishing Company, Ithaca, New York. Pp. 472-475.
- Smith, R.L. 1982. Venomous Animals of Arizona. The Arizona Board of Regents. Pp. 100-104.
- Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. Second edition, revised. Houghton Mifflin Company. Boston, MA.
- USDI, Bureau of Land Management. 2000. Arizona BLM Sensitive Species List. Instruction Memorandum No. AZ-2000-018.
- USDI, Bureau of Land Management. 2005. Arizona BLM Sensitive Species List.
- USDA, Forest Service Region 3. 1988. Regional Forester's Sensitive Species List.
- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.
- USDI, Fish and Wildlife Service. 1985. Endangered and Threatened Wildlife and Plants; Review of Vertebrate Wildlife; Notice of Review. Federal Register 50(181): 37963.
- USDI, Fish and Wildlife Service. 1989. Endangered and Threatened Wildlife and Plants; Animal Notice of Review. Federal Register 54(4): 559.
- USDI, Fish and Wildlife Service. 1994. Endangered and Threatened Wildlife and Plants; Animal Candidate Review for Listing as Endangered or Threatened Species; Notice of Review; Proposed Rule. Federal Register 59(219): 58994.
- USDI, Fish and Wildlife Service. 1996. Endangered and Threatened Wildlife and Plants: Review of Plant and Animal Taxa that are Candidates for Listing as Endangered or

AGFD Animal Abstract

Threatened Species; Notice of Review; Proposed Rule. Federal Register 61(40): 7596-7613.

MAJOR KNOWLEDGEABLE INDIVIDUALS:

- T.R. Van Devender Arizona-Sonora Desert Museum, Tucson, Arizona.
- J.K. Cross Tucson, Arizona.
- R. Ohmart Arizona State University East, Gilbert, Arizona.
- T.B. Johnson Arizona Game and Fish Department, Nongame Branch, Phoenix, Arizona.
- B. Martin Tucson, Arizona.

ADDITIONAL INFORMATION:

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